

Mining and Reclamation Plan
Crandall Canyon Mine
Volume 2

GENWAL COAL COMPANY

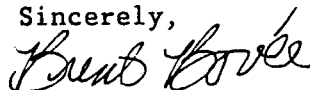
Culvert C-7. With the recent construction of an additional surface structure, located adjacent to the existing metal shop, Genwal designed a modification to drainage ditch DD-3. This resulted in replacing the eastern portion of DD-3 with a 12-inch culvert, C-7. Thus allowing for the new surface structure footings in the vicinity of DD-3. Enclosed are pages 26c and 26d to be inserted into Appendix 7-7 (Diversion Calculations). These should be inserted after page 26b of Appendix 7-7.

Surface water diversion UD-3. Enclosed please find modified plans to surface water diversion UD-3. These modified plans propose replacing an 18-inch PVC pipe with a 12-inch CMP as discussed and reviewed with the Division. The 12-inch pipe was sized for peak flow of the divisions 10 yr.-6hr. storm event. Enclosed for direct insertion into the Crandall Canyon M&RP are pages 11, 13, and 13a of Appendix 7-7. These pages replace pages 11 and 13 of Appendix 7-7. The current inlet structure (page 12 of Appendix 7-7) will remain in service, its 18-inch PVC pipe will be fitted to the 12-inch pipe with a concentric reducer or a similar adapter.

Drainage Ditch DD-4. With the paving of the access road and pad area, the curve number (CN) was upgraded from the previous 90 to 95 as shown on page 7 of Appendix 7-7. This in turn produced a discharge rate of 0.32 cfs. This value was then imputed into the Open Channel Flow Module, Version 3.2 (c) 1990. The computed results include a flow depth of 0.25 ft and a flow velocity of 2.63 fps and are located on page 13 of Appendix 7-7. These new calculations should be substituted for pages 7 and 13 of Appendix ~~7-7~~ 7-11

If you have any questions or comments please don't hesitate to call myself (561-1555), or Jay Marshall (687-9813).

Sincerely,



Brent K. Bovee
Geologist

cc: Jay Marshall, Genwal

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APR 03 1992

DIVISION OF
OIL GAS & MINING

March 26, 1992

Mr. Daron Haddock
Permit Supervisor
Division of Oil, Gas, and Mining
State of Utah Natural Resources
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203

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DIVISION OF
OIL GAS & MINING



EarthFax

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Telephone 801-561-1555

SUBJECT: Modification of surface water diversion facilities. Crandall Canyon Mine, Permit No. 015-032.

Dear Daron:

As per our December 12, 1991 meeting attended by Jay Marshall (Genwal), Randall and Tawna Ralphs (Genwal), and Brent Bovee (EarthFax Engineering), please find the enclosed submittals of pages to be inserted into appendices 7-7 and 7-10 of Genwal Coal Company's Crandall Canyon Mine M&RP. These pages cover 1991 changes of the surface runoff control facilities resulting from recent modifications (primarily paving and construction) of the Genwal access road and surface pad areas. As per DOGM'S request revised appendix pages are dated 3-26-92.

In addition to the updated appendix pages please find enclosed updated plates 7-5a (Surface Runoff Control) and 7-4a (Sediment Pond Control) to be inserted into the permit.

Drainage Ditch DD-5. The enclosed updated page 16 of Appendix 7-7 recalculates the weighted average curve number (CN) resulting from the added runoff due to paving of the access road and pad area. The CN is shown not to change as a result of paving, thereby showing that DD-5 is adequately designed. This page should be substituted for page 16 of Appendix 7-7.

Culvert C-8. Culvert C-8 was installed as an extension of DD-9, transmitting water from DD-9 to the sedimentation pond. The updated page 21 of Appendix 7-7 explains that the DD-9 24-inch CMP is adequate to carry flow from DD-9 to the sedimentation pond. This page should be substituted for page 21 of Appendix 7-7.

Sedimentation pond. Due to road and pad paving, runoff that would result from the 10-yr, 24-hr storm event is increased. Updated pages 1 through 3 of Appendix 7-10 recalculates storm runoff, and presents a revised sediment level to be maintained in the sedimentation pond to accommodate the increases storm runoff. This page should be substituted for pages 1 through 3 of Appendix 7-10.